

UTILIZING FAR 25.562 DATA FOR INTERIOR CERTIFICATION

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FAR 25.562 DATA AND INTERIOR CERTIFICATION

Some portions of FAR 25.562 - Emergency Landing Dynamic Conditions - are a shared responsibility between the FAR 25.562 DER and the Interior Arrangement DER.

- FAR 25.562(c)(5) - Head Injury Criteria
- FAR 25.562(c)(6) - Femur Loads
- FAR 25.562(c)(8) - Rapid Evacuation

FAR 25.562 DATA AND INTERIOR CERTIFICATION

- Always discuss the interior configuration compared to the dynamic test parameters and data with the cognizant FAR 25.562 DER. Formal processes for this interaction are encouraged.
- Gather data from dynamic tests regarding seat deformations, head path, knee path, and deployed items.

FAR 25.562 DATA AND INTERIOR CERTIFICATION

Account for the range of occupants from 5th-95th percentile as required for the specific aircraft model.

(e.g. Head impact with bulkheads for occupants above 50th percentile is allowed for some aircraft as long as there are no protrusions from the bulkhead.)

HEAD AND FEMUR INJURY

§25.562(c)(5)

Each occupant must be protected from serious head injury under the conditions prescribed in paragraph (b) of this section.

§25.562(c)(6)

Where leg injuries may occur from contact with seats or other structure, protection must be provided to prevent excessive axial compressive loads.

HEAD AND FEMUR INJURY

During the interior compliance inspection, the front row seat set back must be verified. In some cases the set back must be great enough to prevent encroachment of the head path and knee path with the bulkhead and items protruding from the bulkhead.

HEAD AND FEMUR INJURY

During the interior compliance inspection, the row-to-row seat pitch(es) must be verified to be within the pitch range(s) substantiated by dynamic testing.

EGRESS

§ 25.562(c)(8)

Seats must not yield under the tests specified in paragraphs (b)(1) and (b)(2) of this section to the extent they would impede rapid evacuation of the airplane occupants.

Refer to Advisory Circular 25.562-1A
Appendix 2 for specifics.

EGRESS

FAR 25.562 relates to FAR 25.813.

FAR 25.813 requires unobstructed aisles, cross-aisles, passageways, assist spaces, and exit openings.

FAR 25.562 has the potential for providing such obstructions.

EGRESS

Deformations resulting from dynamic tests must be used to evaluate clearances in these areas:

- Seat-to-seat or bulkhead
- Seat-to-aisle
- Seat-to-cross aisle
- Seat-to-passageway
- Seat-to-flight attendant assist space
- Seat-to-exit and projected exit opening

EGRESS

In addition to seat deformations, items that deployed during testing must be evaluated for their impact on egress.

Examples of deployable items:

Tray Tables	Video Monitors	Cocktail Tables
Cup-holders	Leg Rests	Foot bars
Life Vests	Life Vest Compartment Doors	Headrests
Passenger Control Units	Ashtrays (some are quite stout)	
	etc.	

EGRESS

- If an item partially deploys, it must be deployed fully or to a structural stop for the evaluation of egress on the aircraft.
- Generally, whether a deployed item impedes egress is a judgment call, but deployment in some areas is not acceptable (e.g. Type III exit passageways).